Applicant: Haruo Sugiyama et al. Attorney's Docket No.: 14875-0170US1 / C1-A0403P-US

Serial No.: 10/594,605

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## Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

## Listing of Claims:

1. (Currently amended) A method for separating a hepatic, endothelial, or hematopoietic progenitor cell from a cell population comprising a hepatic, endothelial, or hematopoietic progenitor cell, wherein the method comprises the steps of:

- a) detecting quantifying the expression level of a WT1 gene or of a reporter gene linked to WT1 promoter in a cell in a cell population, the expression level being in the range of either  $2.21 (\pm 1.62) \times 10^{-2}$  or  $3.54 (\pm 3.39) \times 10^{-4}$  (when expression of the WT1 gene or reporter gene in a K562 leukemia cell line is defined as 1), wherein an expression level in the range of  $2.21 (\pm 1.62) \times 10^{-2}$  indicates that the cell is a hepatic progenitor cell or an endothelial progenitor cell, and an expression level in the range of  $3.54 (\pm 3.39) \times 10^{-4}$  indicates that the cell is a hematopoietic progenitor cell; and
- b) separating the cell from the cell population if expression of the WT1 gene or reporter gene is detected, thereby separating a hepatic, endothelial, or hematopoietic progenitor cell from a cell population.
- 2. (Withdrawn currently amended) A method for simultaneously separating at least two <u>hepatic</u>, <u>endothelial</u>, <u>or hematopoietic</u> progenitor cells from a cell population, <del>wherein the progenitor cells are selected from hepatic, endothelial, and hematopoietic progenitor cells, and wherein the method comprises the steps of:</del>
- a) detecting quantifying the expression level of a WT1 gene or of a reporter gene linked to WT1 promoter in a cell at least two cells in a cell population comprising at least two progenitor cells, selected from hepatic, endothelial, and hematopoietic progenitor cells, the expression level being in the range of either 2.21 (±1.62)×10-2 or 3.54 (±3.39)×10-4 (when expression of the WT1 gene or reporter gene in a K562 leukemia cell line is defined as 1).

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wherein an expression level in the range of 2.21 ( $\pm 1.62$ )×10-2 indicates that the cell is a hepatic progenitor cell or an endothelial progenitor cell, and an expression level in the range of 3.54 ( $\pm 3.39$ )×10-4 indicates that the cell is a hematopoietic progenitor cell; and

- b) separating the cells in which expression of the WT1 gene was detected from the population.
- 3. (Currently amended) The method of claim 1, wherein step a) comprises detection of quantifying expression of the reporter gene.
- 4. (Previously presented) The method of claim 3, wherein the reporter gene is a lacZ gene or green fluorescent protein (GFP) gene, and expression of the reporter gene is detected by a FACS assay.
  - 5-6. (Canceled)
- 7. (Withdrawn currently amended) The method of elaim-6, claim 2. wherein the reporter gene is a lacZ gene or GFP gene, and expression of the reporter gene is detected by a FACS assay.
  - 8. (Canceled)
- 9. (Previously presented) The method of claim 1, wherein the hepatic, endothelial, or hematopoietic progenitor cell is a hepatic progenitor cell.
- 10. (Previously presented) The method of claim 1, wherein the hepatic, endothelial, or hematopoietic progenitor cell is an endothelial progenitor cell.
- 11. (Previously presented) The method of claim 1, wherein the hepatic, endothelial, or hematopoietic progenitor cell is a hematopoietic progenitor cell.

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12. (Previously presented) The method of claim 1, wherein step a) comprises quantifying an expression level of the WT1 gene in the cell.

- 13. (Previously presented) The method of claim 1, wherein the cell is viable.
- 14. (Previously presented) The method of claim 1, wherein the separating step comprises use of FACS sorting.
- 15. (Previously presented) The method of claim 1, further comprising culturing the separated cell of step (b) in a culture under conditions suitable for permitting proliferation of a hepatic progenitor cell.
- 16. (Previously presented) The method of claim 1, further comprising culturing the separated cell of step (b) under conditions suitable for permitting proliferation of an endothelial progenitor cell.
- 17. (Previously presented) The method of claim 1, further comprising culturing the separated cell of step (b) under conditions suitable for permitting proliferation of a hematopoietic progenitor cell.